

The problem of head and neck cancer and its treatment

Abstract

The oral cancer is predominant in developing countries, particularly in lower socioeconomic sectors. Surgery, radiotherapy and chemotherapy are the therapeutic modalities used in the treatment of head and neck cancer. They can be used alone or together. Radiation therapy causes lesions in normal tissues located in the radiation field. The resulting oral sequelae can cause substantial problems during and after radiation therapy and are the major determining factors in patients' quality of life. The most serious and debilitating complications of radiotherapy are mucositis candidiasis and osteoradionecrosis.

Keywords: head and neck neoplasms; radiotherapy; chemotherapy

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Introduction

The number of cancer cases has increased considerably worldwide and is now one of the most important public health problems in the world. Oral cancer has a predominance in developing countries, especially in a population with lower socioeconomic levels.¹ Most of these patients are dependent on the public health system, where a delay in care can occur, thus favoring a late diagnosis, whose treatment is more aggressive, with an unfavorable prognosis, which reduces their quality of life and increasing mortality rates.² Smoking and alcohol abuse are well-known risk factors for the development of oral cancer. Currently the total amount and time of alcohol consumption have been considered more important than the type of alcoholic drink ingested.^{3,4}

Mini review

Treatment of the patient with oral cancer involves a multidisciplinary team that must work integrated aiming the elimination of the disease, while maintaining the quality of life of the patient. High doses of radiation in extensive fields leave several complications that significantly affect patients' quality of life. In addition, these complications can affect even the course of treatment. So we can quickly cite and define the main complications of radiotherapy and chemotherapy for head and neck cancer.⁶

Mucositis

Mucositis is a mucosa lesion with a complex pathogenesis. It is one of the most significant and common complications in cancer patients who are submitted to radiotherapy or Chemotherapy and even in combination therapy.⁷⁻⁹ Mucositis is a complication due to xerostomia, caused by the hypo function of the salivary glands altered by irradiation, which can cause painful and debilitating adverse effects, such as severe pain and difficulty in feeding and maintaining hygiene, which may occur during and after treatment, in turn compromising one's Quality of Life and potentially increasing patient mortality.^{10,11}

Candidiasis

Candida albicans and related fungi are commensal organisms that routinely inhabit the oral cavity. Under normal circumstances they co-exist with the other oral microorganisms of the oral cavity and do not cause disease. Colonization and infections do occur under circumstances where the systemic or local environments altered, including the immunosuppression, hyposalivation, tissue damage, and/or imbalance of flora observed in cancer patients undergoing treatment of head and neck radiotherapy.¹²

Dental disease

Few clinical studies have examined the impact of cancer therapies on dental disease such as caries and periodontal disease. A report said that the weighted prevalence of dental infections abscesses during chemotherapy is approximately 6%.¹³ Patients who had undergone radiotherapy for head and neck malignancies had the highest rate of decayed missing filled teeth among patients who have had antineoplastic therapies.¹⁴

Osteoradionecrosis (ORN)

One of the most serious complications of head and neck radiotherapy and is considered a public health problem worldwide. It is characterized by defects in healing and the loss of bone viability, induced by the tissue effects of radiation.¹⁵ Osteoradionecrosis of the jaws is, undoubtedly, one of the major complications of radiotherapy in the head and neck region and cannot always be avoided, generating a huge psychological and physical impact on patients.¹⁶

Conclusion

It is extremely important that all healthcare professionals involved with these patients be able to diagnose complications arising from the antineoplastic treatment. Extensive professional support will provide the patient with greater confidence and cooperation that will positively reflect in the final treatment outcome.⁶

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Conflict of interest

None.

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